## CLAIMS

1      Method for processing images compressed using block based compression, comprising:

determining whether two blocks are neighboring blocks;

determining whether the two neighboring blocks are both subdivided, if it is determined that the two blocks are neighboring blocks;

performing deblocking filtering on one or more edge pixels of the two neighboring blocks, if it is determined that both of the two neighboring blocks are not subdivided.


2      The method of claim 1, wherein determining whether two neighboring blocks are both subdivided comprises:

obtaining variance values of each of the two neighboring blocks;

comparing the variance values to a first threshold; and

determining whether the two neighboring blocks are both subdivided based upon the comparison of the variance values to the first threshold.


3      The method of claim 1, wherein determining whether two neighboring blocks are both subdivided comprises:

obtaining a block size assignment value; and

using the block size assignment value to determine whether the two neighboring values are subdivided.


4      The method of claim 1, further comprising:

determining whether one of the two neighboring blocks is subdivided, if both of the two neighboring blocks are not subdivided;

using a first deblocking filter on one or more edge pixels of the two neighboring blocks if one of the two neighboring blocks is subdivided; and

using a second deblocking filter on one or more edge pixels of the two neighboring blocks if neither of the two neighboring blocks are subdivided.


5      The method of claim 4, wherein using the second deblocking filter comprises:

using a two point averaging filter on two edge pixels of the two neighboring blocks.

6      The method of claim 4, further comprising:

obtaining one or more difference values of one or more edge pixels of the two neighboring blocks, if neither of the two neighboring blocks are subdivided;

comparing the one or more difference values to a second threshold; and

selecting the second deblocking filter based on the comparison of the one or more difference values to the second threshold.

7      The method of claim 6, wherein the obtaining one or more difference values comprises:

obtaining a first order difference between edge pixels of the two neighboring blocks.

8      The method of claim 6, wherein the obtaining one or more difference values comprises:

obtaining a second order difference between edge pixels of the two neighboring blocks.

9      The method of claim 6, wherein obtaining one or more difference values comprises:

obtaining difference values between three edge pixels of the two neighboring blocks; and wherein selecting the second deblocking filter comprises:

using a Gaussian filter if at least two of the difference values are greater than the second threshold.

10     The method of claim 9, wherein using a Gaussain filter comprises:

using a six point Gaussian filter on six edge pixels of the two neighboring blocks, if the difference values are greater than the second threshold.

11     The method of claim 9, wherein using a Gaussain filter comprises:

using a four point Gaussian filter on four edge pixels of the two neighboring blocks, if two of the difference values are greater than the second threshold.

12    The method of claim 9, wherein selecting the second deblocking filter further comprises:

using an averaging filter on two edge pixels of the two neighboring blocks if one of the difference values is greater than the second threshold.

13    Apparatus for processing images compressed using block based compression, comprising:

means for determining whether two blocks are neighboring blocks;

means for determining whether the two neighboring blocks are both subdivided, if it is determined that the two blocks are neighboring blocks;

means for filtering on one or more edge pixels of the two neighboring blocks, if it is determined that both of the two neighboring blocks are not subdivided.

14    The apparatus of claim 13, wherein the means for determining whether two neighboring blocks are both subdivided comprises:

means for obtaining variance values of each of the two neighboring blocks;

means for comparing the variance values to a first threshold; and

means for determining whether the two neighboring blocks are both subdivided based upon the comparison of the variance values to the first threshold.

15    The apparatus of claim 13, wherein the means for determining whether two neighboring blocks are both subdivided comprises:

means for obtaining a block size assignment value; and

means for using the block size assignment value to determine whether the two neighboring values are subdivided.

16    The apparatus of claim 13, further comprising:

means for determining whether one of the two neighboring blocks is subdivided, if both of the two neighboring blocks are not subdivided;

means for using a first deblocking filter on one or more edge pixels of the two neighboring blocks if one of the two neighboring blocks is subdivided; and

means for using a second deblocking filter on one or more edge pixels of the two neighboring blocks if neither of the two neighboring blocks are subdivided.

17    The apparatus of claim 16, further comprising:

means for obtaining one or more difference values of one or more edge pixels of the two neighboring blocks, if neither of the two neighboring blocks are subdivided;

means for comparing the one or more difference values to a second threshold; and

means for selecting the second deblocking filter based on the comparison of the one or more difference values to the second threshold.

18    The apparatus of claim 17, wherein the means for obtaining one or more difference values comprises:

means for obtaining difference values between three edge pixels of the two neighboring blocks; and wherein the means for selecting the second deblocking filter comprises:

means for using a Gaussian filter if at least two of the difference values are greater than the second threshold.

19    The apparatus of claim 18, wherein the means for using a Gaussain filter comprises:

means for using a six point Gaussian filter on six edge pixels of the two neighboring blocks, if the difference values are greater than the second threshold.

20    The apparatus of claim 18, wherein the means for using a Gaussain filter comprises:

means for using a four point Gaussian filter on four edge pixels of the two neighboring blocks, if two of the difference values are greater than the second threshold.

21    The apparatus of claim 18, wherein the means for selecting the second deblocking filter further comprises:

means for using an averaging filter on two edge pixels of the two neighboring blocks if one of the difference values is greater than the second threshold.

22    An article of manufacture for use in a computer system embodying a block based image compressing system, said article of manufacture comprising a

machine readable medium having machine readable code means embodied in said medium comprising:

machine readable code means embodied in said machine readable medium for determining whether two blocks are neighboring blocks;

machine readable code means embodied in said machine readable medium for determining whether the two neighboring blocks are both subdivided, if it is determined that the two blocks are neighboring blocks;

machine readable code means embodied in said machine readable medium for filtering on one or more edge pixels of the two neighboring blocks, if it is determined that both of the two neighboring blocks are not subdivided.

23    The article of manufacture of claim 22, wherein the machine readable code means for determining whether two neighboring blocks are both subdivided comprises:

machine readable code means embodied in said machine readable medium for obtaining variance values of each of the two neighboring blocks;

machine readable code means embodied in said machine readable medium for comparing the variance values to a first threshold; and

machine readable code means embodied in said machine readable medium for determining whether the two neighboring blocks are both subdivided based upon the comparison of the variance values to the first threshold.

24    The article of manufacture of claim 22, wherein the machine readable code means for determining whether two neighboring blocks are both subdivided comprises:

machine readable code means embodied in said machine readable medium for obtaining a block size assignment value; and

machine readable code means embodied in said machine readable medium for using the block size assignment value to determine whether the two neighboring values are subdivided.

25    The article of manufacture of claim 22, further comprising:

machine readable code means embodied in said machine readable medium for determining whether one of the two neighboring blocks is subdivided, if both of the two neighboring blocks are not subdivided;

machine readable code means embodied in said machine readable medium for using a first deblocking filter on one or more edge pixels of the two neighboring blocks if one of the two neighboring blocks is subdivided; and

machine readable code means embodied in said machine readable medium for using a second deblocking filter on one or more edge pixels of the two neighboring blocks if neither of the two neighboring blocks are subdivided.


26    The article of manufacture of claim 25, further comprising:

machine readable code means embodied in said machine readable medium for obtaining one or more difference values of one or more edge pixels of the two neighboring blocks, if neither of the two neighboring blocks are subdivided;

machine readable code means embodied in said machine readable medium for comparing the one or more difference values to a second threshold; and

machine readable code means embodied in said machine readable medium for selecting the second deblocking filter based on the comparison of the one or more difference values to the second threshold.


27    The article of manufacture of claim 26, wherein the machine readable code means for obtaining one or more difference values comprises:

machine readable code means embodied in said machine readable medium for obtaining difference values between three edge pixels of the two neighboring blocks; and wherein the codes for selecting the second deblocking filter comprises:

machine readable code means embodied in said machine readable medium for using a Gaussian filter if at least two of the difference values are greater than the second threshold.


28    The article of manufacture of claim 27, wherein the machine readable code means for using a Gaussain filter comprises:

machine readable code means embodied in said machine readable medium for using a six point Gaussian filter on six edge pixels of the two neighboring blocks, if the difference values are greater than the second threshold.

29    The article of manufacture of claim 27, wherein the machine readable code means for using a Gaussain filter comprises:

machine readable code means embodied in said machine readable medium for using a four point Gaussian filter on four edge pixels of the two neighboring blocks, if two of the difference values are greater than the second threshold.

30    The article of manufacture of claim 27, wherein the machine readable code means for selecting the second deblocking filter further comprises:

machine readable code means embodied in said machine readable medium for using an averaging filter on two edge pixels of the two neighboring blocks if one of the difference values is greater than the second threshold.

31    Apparatus for processing images compressed using block based compression, comprising:

a processor configured to determine whether two blocks are neighboring blocks and to determine whether two neighboring blocks are subdivided if it is determined that the two blocks are neighboring blocks;

a deblocking filter configured to filter on one or more edge pixels of the two neighboring blocks, if it is determined that at least one of the two neighboring blocks are not subdivided.

32    The apparatus of claim 31, wherein the processor determines whether two neighboring blocks are divided using block size assignment information.

33    The apparatus of claim 31, wherein the processor determines whether two neighboring blocks are divided based upon variance values of each block.